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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,048

11/08/2005

Mark Geach

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23117 7590 09/11/2009  
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EXAMINER

BEKKER, KELLY JO

ART UNIT

PAPER NUMBER

1794

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,048	<b>Applicant(s)</b> GEACH, MARK	
	<b>Examiner</b> KELLY BEKKER	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,9,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,9 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

Amendments made June 2, 2009 have been entered.

Claims 1, 3, 9, 14 and 15 are pending;  
Claim 14 is withdrawn from consideration.

***Claim Rejections - 35 USC § 112***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The 112 second paragraph rejections of claim 2 are moot as the claim has been canceled in the amendments filed June 2, 2009.

Claims 1, 3, 9, 14, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, "A composition, free of gelatin, comprising a natural binder that is a particulate algae and a dry powdered diet which, wherein when mixed with wet feed and/or with cold water, forms a gel." It is unclear as to if the "composition" or the "dry powdered diet" forms a gel when mixed with wet feed and/or cold water. The Examiner suggests definite language, such as "wherein *said composition* when mixed with the wet feed and/or cold water forms a gel".

Claim 1 recites, "A composition comprising a dry powdered diet which, when mixed with wet feed and/or with water, forms a gel." It is unclear as to what the term "dry powdered diet" encompasses. It is unclear as to if the term includes any powdered type food, or if the term includes only specific diet foods, such as for a certain species, or if the term has some other meaning.

Claim 1 recites the term "cold water". The term "cold" is relative. It is unclear as to what temperature the water must be at to be considered cold. For example, it is unclear as to if the term means that the water is unheated and at room temperature, or if the water is chilled, or if the term has some other meaning.

***Response to Arguments - 35 USC § 112***

Applicant's arguments filed June 2, 2009 regarding the 112 2<sup>nd</sup> paragraph rejection of claim 1 have been fully considered but they are not persuasive.

Applicant argues that the claim is definite and cites the specification as clarification. Applicant's argument is not convincing as (1) it is unclear as to whether the composition or the dry powdered diet forms the gel and as the terms "dry powdered diet" and "cold water" as recited in claim 1 are unclear; and (2) although the claims are read in light of the specification, limitations of the specification are not read into the claims.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The 102(b) rejection of claims 1-10 as being anticipated by Dugger et al (WO 98/47392) has been withdrawn in light of applicant's amendments filed June 2, 2009.

The 102(b) rejection of claims 1-4, 6, 7 and 10-13 as being anticipated by Smith (GB 2175486 A) has been withdrawn in light of applicant's amendments filed June 2, 2009.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Baekken et al (WO 01/01792 A1).

Baekken et al (Baekken) teaches of a composition comprising seaweed (i.e. a type of algae) meal (i.e. particulate matter) which is a natural binder and raw feed materials, such as wheat meal which is a dry powdered diet, and comprising vitamins and minerals, which when mixed with an unheated, i.e. a cold, acid water solution forms a gel (Page 1 paragraph 1, Page 3 paragraph 3, and Example 1). Baekken teaches that the composition does not include gelatin, Example 1.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The 103(a) rejection of claims 11-13 as being unpatentable over Dugger et al (WO 98/47392) has been withdrawn in light of applicant's amendments filed June 2, 2009.

Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baekken et al (WO 01/01792 A1) in view of Smith (GB 2175486).

Baekken teaches of a composition comprising an algae particulate matter and a dry powdered diet as discussed above. Baekken teaches that the composition comprises raw materials including fish and animal meal. Baekken teaches that the type of fish meal is not critical. Refer specifically to Page 5 paragraph 2. Baekken teaches that the algae material, i.e. the seaweed, comprises alginate and that the alginate is from natural sources (Page 6 paragraph 1 and Example 1), thus one of ordinary skill in the art at the time the invention was made would expect that the particulate matter which contains the alginate as taught by Baekken is also from natural sources. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the alginate to be from natural sources when natural sources where more available and affordable. To use a natural source of algae or an equivalent artificial source would not impart a patentable distinction to the claims as it would be to substitute one functional equivalent for another.

Baekken is silent to the fish meal as comprising natural sources of crustacean as recited in claim 9 and to the size that the natural algae is micronized to, specifically to the algae as micronized to a size of between 30-160 micron diameter as recited in claim 15.

Smith teaches that gelled crustacean feed is good for benthic and demersal aquatic animals (page 1 lines 5-7 and 96- 100). Smith teaches that the first step in forming gelled feed products are to form a fine dry mash with a particle size of 100-220 microns to avoid shearing effects when forming the gel (page 1 lines 83-91).

Regarding the fish meal as comprising natural sources of crustacean, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the fish meal in the gelled product taught by Baekken to be a particular type, such as crustacean, depending on the target audience for the final product. For example, it would have been obvious to use crustacean if it was desired for the final product to be feed to benthic and demersal aquatic animals as taught by Smith. Furthermore, to use one type of fish or another in the fish meal would have been obvious and routine determination of one of ordinary skill in the art and would not impart a patentable distinction to the claims as taught by Baekken. Regarding the crustacean as from natural sources, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the crustaceans to be from natural sources when natural sources were more available and affordable. To use a natural source of crustacean or an equivalent artificial source would not impart a patentable distinction to the claims as it would be to substitute one functional equivalent for another.

Regarding the particulate algae as micronized to 30-160 microns, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the particulate algae to be micronized to 100-220 mesh diameter in order to avoid shearing of the material when mixing and forming of the gel as taught by Smith. To choose a particular particle size depending on the forming equipment available and the texture desired in the final food product would have been obvious and routine determination to one of ordinary skill in the art at the time the invention was made.

Claims 1, 3, 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurzinger et al (use WO reference) in view of Smith (GB 2175486).

Kurzinger et al (Kurzinger) teaches of a composition comprising algae, which is a natural binder (Column 1 lines 49-58) and natural feed including shrimps which are crustacean (Column 2 lines 52-62), wherein when mixed with water forms a gel (Column 1 lines 4-8 and Column 3 lines 44-47). Kurzinger teaches that the composition comprises non-gelatin gelling agents and does not require gelatin, thus teaching that the composition does not include gelatin (Column 2 lines 17-31 and Column 2 line 63

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through Column 3 line 9). Kurzinger teaches that the natural gel former is carrageenan, which is found in natural algae (Column 2 lines 17-34) and that the gel temperature depends on the gelling agent chosen (Column 2 line 63 through Column 3 line 9). Kurzinger teaches that the feed is dried feed, i.e. granulates, flakes or tables, which can be reconstituted with water and form gels (Column 1 lines 4-8 and Column 3 lines 19-28). Kurzinger teaches that the feed comprises vitamins or minerals (claim 11). Regarding the composition as able to form a gel in cold water, Kurzinger teaches that the natural gel former is carrageenan, which is found in natural algae (Column 2 lines 17-34) and that the gel temperature depends on the gelling agent chosen (Column 2 line 63 through Column 3 line 9); and in applicant's composition the use of algae for gelling functions by action of carrageenan (Applicant's specification page 5 lines 10-15); thus as Kurzinger teaches that the gel temperature depends on the gelling agent chosen and both Kurzinger and the instant invention rely on the same gelling agent, i.e. carrageenan, one of ordinary skill in the art at the time the invention was made would expect that the water temperature for gelling the composition of Kurzinger be substantially the same as the instantly claimed composition.

Kurzinger is silent to the algae as in particulate form as recited in claim 1, preferably as micronized to 30-160 micron diameter as recited in claim 15, and to the crustacean derived from natural sources as recited in claim 9.

Smith teaches that gelled crustacean feed is good for benthic and demersal aquatic animals (page 1 lines 5-7 and 96- 100). Smith teaches that the first step in forming gelled feed products are to form a fine dry mash with a particle size of 100-220 microns to avoid shearing effects when forming the gel (page 1 lines 83-91).

Regarding the algae as particulate algae, micronized to 30-160 microns, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the algae to be particulate algae, micronized to 100-220 mesh diameter in order to avoid shearing of the material when mixing and forming of the gel as taught by Smith. To choose a particular particle size depending on the forming equipment available and the texture desired in the final food product would have been obvious and routine determination to one of ordinary skill in the art at the time the invention was made.

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Regarding the fish meal as comprising natural sources of crustacean, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the crustaceans in the composition as taught by Kurzinger to be from natural sources when natural sources were more available and affordable. To use a natural source of crustacean or an equivalent artificial source would not impart a patentable distinction to the claims as it would be to substitute one functional equivalent for another.

### ***Response to Arguments***

Applicant's arguments with respect to the prior art rejections have been considered but are moot in view of the new ground(s) of rejection, as necessitated by applicant's amendments made June 2, 2009.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KELLY BEKKER whose telephone number is (571)272-2739. The examiner can normally be reached on Monday through Friday 8am-4:30pm.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lien Tran/  
Primary Examiner  
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